

IOT based smart load control & shock prevention multiplug

About This Project:

Internet of Things (IoT) is rapidly increasing technology. IoT is the network of physical objects or things embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data. In this project, we are developing a system which will automatically detect objects or human hands touching the multi plug sockets and if an object is detected then the system will take certain actions as it was programmed to do. The way the project works is that an SMPS will output a regulated DC voltage from the main supply and then feed it to the NodeMCU, our main processing brain of the circuit. Now, our multi strip socket system although runs automatically but can be switched on and off manually as well. Whenever, there's an object found touching the sockets of the multi plug by the relays, it immediately will send a signal to the NodeMCU and the microcontroller shuts down the whole system immediately. So, none is going to be electrocuted by the power strips if accidentally puts his hand on the live sockets. This system is a very smart way to project someone from facing such dangerous situations and may as well be able to save lives in the process. This type of shock prevention multi plug system is a must need in our country.

Block Diagram:

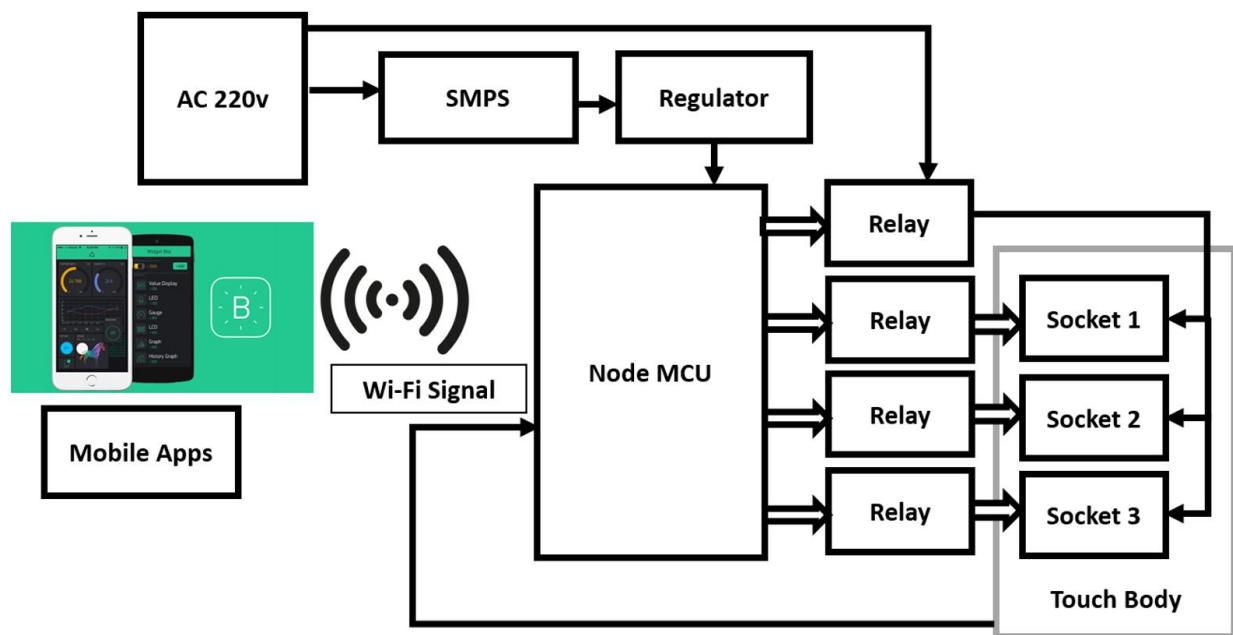


Figure: Block Diagram of IOT based smart load control & shock prevention multipplug.

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Required Instrument:

- Node MCU
- SMPS
- Relay
- Transistor BC547
- Electrical Socket
- Copper Board
- Wires for connection
- Resistors

Advantages:

There are many advantages of our project because of its accuracy. Some of the advantages are pointed out below:

- Easy to implement
- Reliable and efficient
- Low cost and simple design. Portable
- High Accuracy
- Nature friendly
- Requires low maintenance
- The project is compact and cheap
- Provides child safety

Applications:

The application areas for this project in this modern and practical world are huge and some of these are given below:

- We can use this system for industrial purposes.
- It's also can be used in any household, educational institutes and offices.
- This system can be used anywhere where there's a risk of people getting electrocuted.
- It can be used in hospitals as well.

N.B: Any modification of this project can be done as per your requirement. We will make the project according to your needs. Contact us with your any innovative engineering projects idea. We will help you to implement your project.

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